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ABSTRACT

This flight test guide assists the applicant and his instructor in preparing for the Private or Commercial Pilot Certificate with Glider Rating under Part 61 (revised) of Federal Aviation Regulations. It contains information and guidance concerning the pilot operations, procedures, and maneuvers relevant to the flight test required for that certificate. Preflight operations, glider launches, precision maneuvering, critical performance speeds, flight at critically slow airspeeds, and accuracy approaches and landings both for the private and the commercial pilot are covered. A suggested flight test check list is included. (KP)

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FLIGHT TEST GUIDE

[Part 61 Revised]

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PRIVATE and COMMERCIAL PILOT

Glider

1973

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AC 61-61

FLIGHT TEST GUIDE

[Part 61 Revised]

PRIVATE and COMMERCIAL PILOT

Glider

1973

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION
Flight Standards Service

PREFACE

Part 61 (revised) of Federal Aviation Regulations, effective November 1, 1973, establishes a new concept of pilot training and certification requirements. To provide a transition to these revised requirements, Part 61 (revised) permits the applicant, for a period of 1 year after the effective date, to meet either the previous requirements or those contained in the revised Part. *AC 61-39A, Private and Commercial Glider Pilot Flight Test Guide,* dated 1970, outlines the previous requirements.

This flight test guide, AC 61-61, has been prepared by Flight Standards Service of the Federal Aviation Administration to assist the applicant and his instructor in preparing for the flight test for the Private and the Commercial Pilot Certificate with Glider Rating under Part 61 (revised). It contains information and guidance concerning the pilot operations, procedures, and maneuvers relevant to the flight test required for that certificate. A suggested flight test checklist is included for the convenience of those who may find such a checklist useful.

In addition to providing help to the applicant and his instructor, this guide will be

useful to FAA Inspectors and designated pilot examiners in the conduct and standardization of flight tests. Persons using this guide in connection with private and commercial pilot training and flight tests should also refer to the applicable *Federal Aviation Regulations; Airman's Information Manual; Flight Training Handbook, AC 61–21; American Soaring Handbook; Joy of Soaring Manual;* and pertinent advisory circulars.

Comments regarding this guide may be directed to Department of Transportation, Federal Aviation Administration, Flight Standards Technical Division, P.O. Box 25082, Oklahoma City, Oklahoma 73125.

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APPLICANT'S FLIGHT TEST CHECKLIST
(Suggested)

APPOINTMENT WITH INSPECTOR
OR EXAMINER: Name _____

Time/Date _____

ACCEPTABLE GLIDER

- ☐ Aircraft Documents:
  - Airworthiness Certificate
  - Registration Certificate
  - Operating Limitations
- ☐ Aircraft Maintenance Records:
  - Airworthiness Inspections
- ☐ FCC Station License (if applicable)

PERSONAL RECORDS

- ☐ Pilot Certificate
- ☐ Medical Statement
- ☐ Signed Recommendation
- ☐ Written Test Results
- ☐ Logbook
- ☐ Notice of Disapproval (if applicable)
- ☐ Approved School Graduation Certificate (if applicable)
- ☐ FCC Radiotelephone Operator Permit (if applicable)
- ☐ Examiner's Fee (if applicable)

GENERAL INFORMATION

PILOT TRAINING AND CERTIFICATION CONCEPT

Part 61 of the Federal Aviation Regulations has been revised and upgraded to reflect the complexity of the modern aircraft as well as its operating environment. In the past, airman certification requirements could be met by training a student to pass a written test and then to demonstrate his ability to perform predetermined flight training maneuvers during a flight test. Rather than merely duplicating on the flight test the maneuvers used for training, the new training and certification concept requires that the applicant receive instruction in and demonstrate his competency in *all pilot operations* listed in pertinent sections of Part 61 (revised). A pilot operation, as used herein, is a group of related procedures and maneuvers involving skills and knowledge required to safely and efficiently function as a pilot. The specific procedures and maneuvers used to teach the pilot operations are not listed in Part 61 (revised). Instead, the instructor is permitted to select procedures and maneuvers from FAA approved training publications pertinent to the certificate or rating sought.

The instructor indicates by logbook endorsement that the applicant has demonstrated competency in all the required pilot operations and considers him qualified to pass the flight test. On the flight test, the examiner[1] selects the procedures and maneuvers to be performed by the applicant to show competency in each required pilot operation.

The procedures and maneuvers appropriate to the Private and Commercial Pilot Certificate with a Glider Rating are contained in the *American Soaring Handbook* or *Joy of Soaring Training Manual*.

USE OF THIS GUIDE

The pilot operations in this flight test guide, indicated by Roman numerals, are required by § 61.107(d) and § 61.127(d) of Part 61 (revised). This guide is intended only to outline appropriate pilot operations and the minimum standards for the performance of each procedure or maneuver which will be accepted by the examiner as evidence of the pilot's competency. It is not intended that the applicant be tested on every procedure or maneuver within each pilot operation, but only those considered necessary by the examiner to determine competency in each pilot operation.

[1] The word "examiner" is used hereafter in this guide to denote either the Federal Aviation Administration Inspector or designated pilot examiner who conducts an official flight test.

When, in the judgment of the examiner, certain demonstrations are impractical, competency may be determined by oral testing.

This guide contains an ***Objective*** for each required pilot operation. Under each pilot operation, pertinent procedures or maneuvers are listed with ***Descriptions*** and ***Acceptable Performance Guidelines.***

1. The ***Objective*** states briefly the purpose of each pilot operation required on the flight test.

2. The ***Description*** provides information on what may be asked of the applicant regarding the selected procedure or maneuver. The procedures or maneuvers listed have been found most effective in demonstrating the objective of that particular pilot operation.

3. The ***Acceptable Performance Guidelines*** include the factors which will be taken into account by the examiner in deciding whether the applicant has met the objectives of the pilot operation. The airspeed, altitude, and heading tolerances given represent the minimum performance expected in good flying conditions. However, consistently exceeding these tolerances before corrective action is initiated is indicative of an unsatisfactory performance. Any procedure or action, or the lack thereof, requiring the intervention of the examiner

to maintain safe flight will be disqualifying. Failure to exercise proper vigilance or to take positive action to ensure that the flight area has been adequately cleared for conflicting traffic will also be disqualifying.

Emphasis will be placed on procedures, knowledge, and maneuvers most critical to a safe performance as a pilot. The demonstration of prompt stall recognition, adequate control, and recovery techniques will receive special attention. Other areas of importance include spatial disorientation, collision avoidance, and wake turbulence hazards.

The applicant will be expected to know the meaning and significance of the glider performance speeds important to the pilot and be able to readily find these speeds for the glider used for the flight test.

GENERAL PROCEDURES FOR FLIGHT TESTS

The ability of an applicant for a private or commercial pilot certificate, with a glider rating on that certificate, to perform the required pilot operations is based on the following:

1. Executing procedures and maneuvers within the aircraft's performance capabilities and limitations.

2. Executing emergency procedures and maneuvers appropriate to the aircraft.

3. Piloting the aircraft with smoothness and accuracy.

4. Exercising judgment.

5. Applying his aeronautical knowledge.

6. Showing that he is the master of the aircraft, with the successful outcome of a procedure or maneuver never seriously in doubt.

If the applicant fails any of the required pilot operations, he fails the flight test. The examiner or the applicant may discontinue the test at any time when the failure of a required pilot operation makes the applicant ineligible for the certificate or rating sought. If the test is discontinued, the applicant is entitled to credit for only those entire pilot operations that he has successfully performed.

FLIGHT TEST PREREQUISITES

An applicant for the private or commercial glider pilot flight test is required by revised § 61.39 of the Federal Aviation Regulations to have: (1) passed the appropriate private or commercial glider pilot written test within 24 months before the date he takes the flight test, (2) the applicable instruction and aeronautical experience prescribed for a private or commercial glider pilot certificate, (3) a written statement certifying that he has no known medical defect that makes him unable to pilot a glider, (4) reached at least 16 years of age for a private pilot certificate and

18 years of age for a commercial pilot certificate, and (5) a written statement from an appropriately certificated flight instructor certifying that he has given the applicant flight instruction in preparation for the flight test within 60 days preceding the date of application and finds him competent to pass the test and to have a satisfactory knowledge of the subject areas in which he is shown to be deficient by his airman written test report.

GLIDER AND EQUIPMENT REQUIREMENTS FOR FLIGHT TEST

The applicant is required by revised § 61.45 to provide an airworthy glider for the flight test. This glider must be capable of, and its operating limitations must not prohibit, the pilot operations required in the test. The following equipment is relevant to the pilot operations required by Part 61 (revised).

1. Flight controls that are easily reached and operated in a normal manner by both pilots.

2. Operating instructions and limitations. The applicant should have an appropriate checklist, an Owner's Manual/Handbook, or, if required for the glider used, an FAA approved Glider Flight Manual. Any operating limitations or other published recommendations of the manufacturer that are applicable to the specific glider will be observed.

PRIVATE PILOT OPERATIONS
Procedures/Maneuvers

I. PREFLIGHT OPERATIONS

Objective

To determine that the applicant can ensure that he meets the requirements to act as pilot in command, that the glider and the launch equipment are in condition for a safe operation, and that the weather conditions are suitable for the proposed flight.

Procedures/Maneuvers

A. Documents and Records

1. Description The applicant may be asked to present and discuss his pilot certificates, medical statement, his and the tow-pilot's recency of experience records, the airworthiness certificate, registration certificate, maintenance records, operating manual, operating limitations, and FAA approved Glider Flight Manual, if one is required.

2. Acceptable Performance Guidelines The applicant shall be able to present each item and explain its purpose and significance and shall determine the equipment's performance characteristics.

B. Weight and Balance

1. Description The applicant may be asked to make practical and appropriate computations of permissible loading and distribution of weight using approved weight and balance data applicable to the glider being used.

2. Acceptable Performance Guidelines The applicant shall determine loads and load distribution in relation to allowable gross weight and center of gravity limits and shall make necessary load adjustments to remain within limits.

C. Weather Information

1. Description The applicant may be asked to obtain Aviation Weather Reports, Area and Terminal Forecasts, and Winds Aloft Forecasts pertinent to the proposed flight.

2. Acceptable Performance Guidelines The applicant shall demonstrate that he knows what information a weather briefing should include, how to best obtain this information, and that he understands its significance to his proposed flight.

D. Line Inspection

1. Description The applicant may be asked to demonstrate a visual inspection of the glider's condition, operation of controls, security of attachments, and proper assembly of all components of the glider. This includes inspecting the general condition and functioning of equipment used to launch the

glider. Special emphasis should be given to tow line and weak-link strength, proper hookup, and normal and emergency releases. The use of a checklist is recommended.

2. Acceptable Performance Guidelines The applicant shall perform an orderly and complete inspection of the glider and equipment necessary for the operation to determine their acceptability for safe operation.

II. GLIDER LAUNCHES

Objective

To determine that the applicant can safely control the glider during ground tows or aero tows. **(The applicant's certificate will be limited to the kind of tow selected.)**

Procedures/Maneuvers

A. Ground Tow (automobile or winch)

1. Description The applicant may be asked to demonstrate his ability to pilot the glider during a launch by automobile or powered winch. The glider should be pulled at a predetermined speed to enable the glider pilot to climb and release at an altitude where he can safely search for lift or fly a normal traffic pattern and return for a landing.

2. Acceptable Performance Guidelines The applicant shall properly direct the hookup and signal readiness for takeoff. He shall smoothly and effectively lift off and establish the appropriate climb segments to efficiently gain altitude. He shall show that

he understands the effect of up-elevator on airspeed while under tow. Release shall be made smoothly without imposing excessive structural loads on the glider. The applicant shall display knowledge of procedures to be followed during emergencies, such as towline breaks or failure of the release mechanism.

B. Aero Tow

1. Description If this method of launching is selected, the applicant may be asked to demonstrate his ability to pilot a glider during a launch using an airplane which has suitable performance. The glider should be towed aloft and released at an altitude and position agreed upon in advance. This demonstration includes the use of standard signals, proper liftoff, proper tow position, corrections for a slack towline, flight through and around the wake, proper maneuvering upon release, and emergency procedures.

2. Acceptable Performance Guidelines The applicant shall assure that he is ready for takeoff before giving the appropriate signal and shall make a smooth, normal liftoff. Retarding the towplane's performance by excessive or hazardous maneuvering, improper positioning, allowing excessive slack in the towline, or consistently using faulty coordination shall be disqualifying. He shall display knowledge of procedures to be followed during emergencies.

III. PRECISION MANEUVERING

Objective

To determine that the applicant can safely maneuver the glider to obtain maximum performance under various flight situations.

Procedures/Maneuvers

A. Steep Turns

1. Description The applicant may be asked to demonstrate banked turns in both directions, using banks of at least 45°, such as used to circle within the strongest lift of small diameter thermals. The turns should be made smoothly and properly coordinated. An airspeed that is slightly higher than that for straight flight should be used.

2. Acceptable Performance Guidelines The applicant's performance shall be evaluated on the basis of his smoothness and coordination while performing the 45° banked turns. He shall adjust the pitch attitude as the bank steepens so that an appropriate airspeed results. Any tendency to stall or enter a spiral dive during the turns shall be disqualifying.

B. Spirals

1. Description The applicant may be asked to perform a spiral over a specified area, as would be done to dissipate altitude while remaining over a selected area on the surface.

2. *Acceptable Performance Guidelines* The applicant's performance shall be evaluated on his ability to spiral in either direction smoothly and with good coordination. He shall recognize the approach to an unintentional high speed spiral dive and shall use proper recovery procedures from this condition.

IV. CRITICAL PERFORMANCE SPEEDS

Objective

To determine that the applicant can safely and effectively apply his knowledge of various speeds critical to glider operation.

Procedures/Maneuvers

A. Best Glide Speed

1. Description The applicant may be asked to determine, explain the use of, and if requested by the examiner, establish the indicated airspeed that will produce the flattest glide obtainable in still air.

2. Acceptable Performance Guidelines The applicant shall know the purpose of the best glide speed and be able to demonstrate its use.

B. Minimum Sink Speed

1. Description The applicant may be asked to determine, explain the use of, and

establish the indicated airspeed at which the glider loses altitude most slowly.

2. Acceptable Performance Guidelines The applicant shall determine minimum sink speed, explain its purpose, and be able to demonstrate its appropriate use.

C. Maximum Speeds

1. Description The applicant may be asked to apply the proper flight techniques to avoid flight at maximum placarded tow speeds and red-line speeds.

2. Acceptable Performance Guidelines The applicant shall determine the maximum speeds and be able to maneuver the glider in such a manner as to avoid exceeding those speeds.

D. Speed-To-Fly

1. Description The applicant may be asked to determine, explain the use of, and establish the speed which produces the flattest glide in conditions of convection without considering the effect of wind. Also, he shall determine the speed to use for best penetration considering wind conditions.

2. Acceptable Performance Guidelines The applicant shall apply his knowledge of speed-to-fly and establish the proper speed. He shall determine and use the appropriate speed for a wind condition.

V. FLIGHT AT CRITICALLY SLOW AIRSPEEDS

Objective

To determine that the applicant understands the reason for and can recognize changes in flight characteristics at critically slow airspeeds. To determine that the applicant understands the reason for and can recognize imminent and full stalls and can make prompt, effective stall recoveries from all normally anticipated flight attitudes.

Procedures/Maneuvers

A. Maneuvering at Minimum Control Speed

1. Description The applicant may be asked to maneuver the glider in straight and turning flight at such speed that controllability is minimized to the point that if the angle of attack is further increased by an increase in load factor or a decrease in airspeed an immediate stall would result.

2. Acceptable Performance Guidelines The applicant shall recognize and establish the minimum controllable airspeed and be able to maintain that speed through straight and turning flight. Any indication of a stall shall be disqualifying.

B. Imminent Stalls

1. Description The applicant may be asked to establish a flight attitude that will

result in an imminent stall. This should be accomplished during straight flight or during turns by smoothly increasing the angle of attack until the first buffeting or rapid decay of control effectiveness is noted. Recoveries should be made by reducing the angle of attack immediately to regain a normal flight attitude.

2. Acceptable Performance Guidelines The applicant shall recognize the indication of pending stalls and take prompt control action to recover to a normal flight attitude.

C. Full Stalls

1. Description The applicant may be asked to establish an attitude that will result in a full stall. This should be accomplished during straight flight or during turns by smoothly increasing the pitch to an attitude which will produce the angle of attack that will result in a stall, then maintaining that attitude until a full stall occurs. Recoveries should be made by reducing the angle of attack and establishing a normal flight attitude.

2. Acceptable Performance Guidelines The applicant shall be aware that stalls may occur in any attitude or at any airspeed, and he shall recognize the indications of a full stall. He shall promptly, smoothly, and effectively recover to a normal flight attitude.

VI. ACCURACY APPROACHES AND LANDINGS

Objective

To determine that the applicant can make accurate, smooth, and safe approaches and landings.

Procedures/Maneuvers

A. Normal and Crosswind Landings

1. Description The applicant may be asked to perform accurate approaches and landings under normal and crosswind conditions. Considering the existing wind conditions he shall maneuver the glider to a landing, stopping short of and within 200 feet of a designated line or mark. Spoilers, dive brakes or flaps, and moderate slips may be used as necessary. The crosswind landing demonstration should be consistent with safety.

2. Acceptable Performance Guidelines Poor judgment, violent maneuvering, the use of improper airspeeds, landing outside the designated landing area, or stopping beyond the designated line or mark shall be disqualifying.

B. Downwind Landings

1. Description The applicant may be asked to demonstrate the appropriate use of downwind landings. Good judgment should be used to plan the approach and landing to

take advantage of the size and slope of the selected landing area.

2. *Acceptable Performance Guidelines* The applicant shall display sound knowledge in recognizing a situation where a downwind landing should be used. He shall display knowledge of the effects of the wind and terrain on the approach and landings, and use proper speeds and control coordination.

C. Simulated Off-Field Landings

1. Description The applicant may be asked to display knowledge of executing an approach and landing into a field other than one normally used for aircraft operations.

2. *Acceptable Performance Guidelines* The applicant shall be knowledgable in all aspects of off-field approaches and landings.

COMMERCIAL PILOT OPERATIONS

Procedures/Maneuvers

I. PREFLIGHT DUTIES

Objective

To determine whether the applicant can ensure that the ground and flight crew members are qualified for their tasks, that the glider and launch equipment is in condition for a safe operation, and that the weather conditions are suitable for the proposed flight.

Procedures/Maneuvers

A. Weather Information

1. Description The applicant may be asked to obtain Aviation Weather Reports, Area and Terminal Forecasts, and Winds Aloft Forecasts pertinent to the proposed flight.

2. Acceptable Performance Guidelines The applicant shall demonstrate that he knows what information a weather briefing should include, how to best obtain that weather information, and that he understands its significance to his proposed flight.

B. Documents and Records

1. Description The applicant may be asked to present and discuss his pilot certificates and medical statement, his and the tow-pilot's recency of experience records, the airworthiness certificate, registration certificate, maintenance records, operating manual, operating limitations, and FAA approved Glider Flight Manual, if one is required.

2. Acceptable Performance Guidelines The applicant shall be able to present each item and explain its purpose and significance, and shall determine the glider's performance characteristics by use of the operational data.

C. Glider Assembly

1. Description The applicant may be asked to demonstrate the assembly of the glider such as would be necessary after disassembly for retrieval, transporting, or storage. This involves a systematic procedure for the proper and careful assembly of major components of the glider. A checklist provided by the manufacturer or operator should be used.

2. Acceptable Performance Guidelines The applicant shall carefully select a proper location for assembly considering wind and other factors and assemble the glider, completing each job in an acceptable sequence, using appropriate tools for the assembly.

D. Preflight Inspection

1. Description The applicant may be asked to perform a visual inspection of the glider for condition, operation of controls, security of attachments, and proper assembly of all glider components. The use of a checklist is recommended.

2. Acceptable Performance Guidelines The applicant shall conduct an orderly preflight inspection of all components of the glider to determine their acceptability for safe operation.

E. Weight and Balance

1. Description The applicant may be asked to make practical and appropriate computations of permissible loading and distribution of weight using approved weight and balance data applicable to the glider being used.

2. Acceptable Peformance Guidelines The applicant shall determine load and load distribution in relation to allowable gross weight and center of gravity limits and shall make necessary adjustments to remain within those limits.

F. Inspection of Launch Equipment

1. Description The applicant may be asked to visually inspect the equipment used to launch the glider. He should use a towplane, automobile, or winch that is in good condition and suitable to the type of tow.

Tow lines, releases, and other associated equipment should be inspected for general condition and wear.

2. Acceptable Performance Guidelines The applicant shall conduct an orderly and complete inspection of all equipment necessary for the operation.

II. GLIDER LAUNCHES

Objective

To determine that the applicant can competently control the glider during ground tows or aero tows. ***(The applicant's certificate will be limited to the kind of tow selected.)***

Procedures/Maneuvers

A. Ground Tow (automobile or winch)

1. Description The applicant may be asked to demonstrate his ability to pilot the glider during a launch by automobile or powered winch. The glider should be pulled at a predetermined speed to enable the glider pilot to climb and release at an altitude where he can competently seach for lift or fly a normal traffic pattern and return for a landing.

2. Acceptable Performance Guidelines The applicant shall properly direct the hookup and signal his readiness for takeoff. He shall smoothly and effectively lift off and establish the appropriate climb segments to

efficiently gain altitude. He shall show that he understands the effect of up-elevator on airspeed while under tow. Release shall be made smoothly without imposing excessive structural loads on the glider. The applicant shall display knowledge of procedures to be followed during emergencies, such as towline breaks or failure of the release mechanism.

B. Aero Tow

1. Description The applicant may be asked to demonstrate his ability to pilot the glider during a launch by an airplane which has performance characteristics suitable for towing the glider. The glider should be towed aloft and released at an altitude and position agreed upon in advance. This demonstration includes the use of standard signals, proper liftoff, proper tow positions, corrections for slack in towline, flying through and around the wake, release, and emergency procedures.

2. Acceptable Performance Guidelines The applicant shall signal that he is ready for takeoff and shall make a smooth, normal liftoff, and apply necessary corrections for wind. Retarding the towplane's performance by excessive or hazardous maneuvering, improper positioning, allowing excessive slack in the towline, or faulty coordination shall be disqualifying. He shall display knowledge of procedures to be followed during emergencies, such as towline

breaks, failure of the release mechanism, or failure of the towplane's powerplant.

III. PRECISION MANEUVERING

Objective

To determine that the applicant can competently maneuver the glider, to obtain maximum performance under various flight situations.

Procedures/Maneuvers

A. Straight Glides

1. Description The applicant may be asked to demonstrate straight glides by holding a constant heading and airspeed in coordinated flight. A landmark should be selected near the horizon for heading reference. He should establish a pitch attitude that will result in maintaining the desired airspeed.

2. Acceptable Performance Guidelines The applicant shall be able to maintain a constant heading with reference to the selected landmark and maintain the desired airspeed. Over-controlling or excessive slips or skids shall be disqualifying.

B. Turns to Headings

1. Description The applicant may be asked to demonstrate turns to specific headings. He should maintain the desired rates of turn and make timely roll-outs to the preselected headings while maintaining appropriate airspeeds.

2. Acceptable Performance Guidelines The applicant's performance shall be evaluated on the basis of his accuracy, smoothness, coordination, and airspeed control.

C. Steep Turns

1. Description The applicant may be asked to demonstrate turns in both directions with 45° to 60° of bank, such as would be used to circle within the strongest lift of small diameter thermals. The turns should be made smoothly and properly coordinated. An airspeed that is slightly higher than that for straight flight should be used.

2. Acceptable Performance Guidelines The applicant's performance shall be evaluated on the basis of his smoothness and coordination while performing the steep turns. He shall adjust the pitch attitude as the bank steepens so that an appropriate airspeed results. Any tendency to approach a stall or approach a high speed spiral dive during the turns shall be disqualifying.

D. Spirals

1. Description The applicant may be asked to perform a spiral over a specified area, as would be done to dissipate altitude while remaining over a selected area on the surface.

2. Acceptable Performance Guidelines The applicant's performance shall be evaluated on his ability to spiral in either

direction smoothly and with good coordination. He shall recognize any approach to an unintentional high speed spiral dive and shall use prompt procedures to recover from this condition.

IV. PERFORMANCE SPEEDS AND FLIGHT AT CRITICALLY SLOW AIRSPEEDS

Objective

To determine that the applicant has a thorough knowledge of speeds pertinent to the safe and efficient operation of gliders and that he can competently maneuver the glider with respect to those speeds. To determine that the applicant can make prompt, effective stall recoveries.

Procedures/Maneuvers

A. Performance Speeds

1. Description The applicant may be asked to demonstrate the use of glider performance speeds such as the best glide speed, minimum sink speed, speed-to-fly, and maximum speed.

2. Acceptable Performance Guidelines The applicant shall explain the purpose of various performance speeds and shall apply these speeds to different flight situations.

B. Flight at Minimum Control Speed

1. Description The applicant may be asked to demonstrate straight flight and shallow and medium banked turns at such airspeed that controllability is minimized to

the point that, if the angle of attack is further increased by an increase in load factor or decrease in airspeed, an immediate stall would result.

2. *Acceptable Performance Guidelines* Performance shall be evaluated on the basis of positive airspeed control, smooth control usage, and proper coordination. Any indication of a stall shall be disqualifying.

C. Stalls

1. *Description* The applicant may be asked to demonstrate recoveries from stalls entered from straight flight and from turns in either direction. Recoveries to straight flight should be initiated either at the first indication of a stall or when the full stall occurs, as directed by the examiner.

2. *Acceptable Performance Guidelines* The applicant shall recognize an incipient stall and a full stall and execute a prompt, smooth, and positive recovery.

V. ACCURACY APPROACHES AND LANDINGS

Objective

To determine that the applicant can competently make accurate, smooth, and safe approaches and landings.

Procedures/Maneuvers

A. Normal and Crosswind Landings

1. *Description* The applicant may be asked to demonstrate approaches and land-

ings under normal and crosswind conditions. With consideration for the existing wind conditions, the applicant should accurately plan and safely maneuver the glider to a landing, stopping short of and within 100 feet of a designated line or mark. Spoilers, dive brakes, flaps, and moderate slips may be used as necessary. Crosswind landing demonstrations should be consistent with safety.

2. Acceptable Performance Guidelines Poor judgment, violent maneuvering, landing outside the designated landing area, or stopping beyond the designated line or mark shall be disqualifying.

B. Downwind Landings

1. Description The applicant may be asked to demonstrate the appropriate use of downwind approaches and landings. Good judgment should be used to plan the approach and landing to take advantage of the size and slope of the selected landing area.

2. Acceptable Performance Guidelines The applicant shall display sound knowledge in recognizing the situation where a downwind landing should be used. He shall know the effects of wind and terrain on downwind operations, and use proper speeds and control coordination.

C. Simulated Off-Field Landings

1. Description The applicant may be asked to execute an approach and landing in a field other than one normally used for air-

craft operations. Because the field elevation would normally be unknown, the altimeter should be disregarded or covered. The entire pattern should be planned and flown as usual, except the placement of the pattern legs and turns should be made without reference to the altimeter.

2. Acceptable Performance Guidelines The applicant shall have a thorough knowledge of all aspects of off-field approaches and landings. During this maneuver he shall display safe techniques and sound judgment.

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